Mold in Housing

Information for First Nation Residents

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Mold in Housing

Information for First Nation Residents

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Cette publication est aussi disponible en français sous le titre : *Information sur la moisissure pour les résidents des Premières Nations* (nº de produit 67238).

The information in this publication is a result of current research and knowledge. Readers should evaluate the information, materials and techniques cautiously for themselves and consult appropriate professional resources to see if the information, materials and techniques apply to them. The images and text are guides only. Project and site-specific factors (climate, cost, aesthetics) must also be considered.

Mold in Housing: Information for First Nation Residents

Issued also in French under title: Information sur la moisissure pour les résidents des Premières Nations

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TABLE OF CONTENTS

INTRODUCTION ii

ABOUT THE *MOLD IN HOUSING* SERIES ii

WHAT IS MOLD AND WHY IS IT A PROBLEM? 1
What is mold? 1
What makes mold grow? 2
Where can mold grow? 2
How can I tell if it is mold? 3
Why is mold a concern? 4
Who is at higher risk from mold? 5

IS THERE A MOLD PROBLEM IN MY HOME? 6

WHAT CAN I DO ABOUT MOLD IN MY HOME? 8
How do I clean up small mold problems? 8
How do I prepare for a medium to large mold cleanup? 10

WHAT CAN I DO TO PREVENT MOLD AND MOISTURE INDOORS? 13
What is relative humidity? 13
How do I measure relative humidity in my home? 14
What should I do if there are signs of excess moisture in my home? 14

AROUND THE HOUSE (CHECKLIST) 15

WHERE CAN I FIND MORE INFORMATION? 24

INTRODUCTION

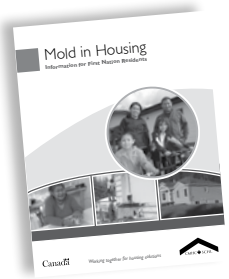
The *Residents' Manual* is part of the *Mold in Housing* series. The information in this manual will help you to recognize when there is a mold problem and take the necessary steps to deal with the problem. This manual may also be suitable for:

- Chief and Council;
- First Nation housing departments including housing committees, housing managers, maintenance supervisors, property management/maintenance officers, property records clerks, construction supervisors, crew leaders, labourers;
- health providers—community health nurses/ representatives and environmental health officers;
- trades—builders, contractors and renovators; and
- technical service providers (inspectors).

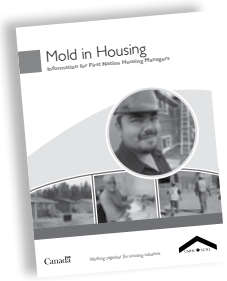
Mold can be a problem in houses anywhere, both in and outside First Nation communities. It can be a minor nuisance or it can have major effects on you and your family.

Mold in houses does not happen overnight. The solutions are also not immediate. If you have a mold problem, you will need a plan that includes dealing with existing situations, preventing future problems and planning of new mold-resistant construction.

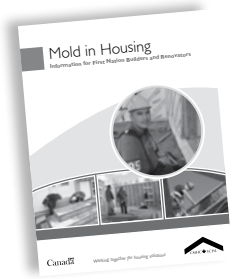
ABOUT THE *MOLD IN HOUSING* SERIES



Residents' Manual
This first manual of the series includes information written for home occupants and any other individuals who want to learn basic information about mold (product # 67237).



Housing Managers' Manual
This second manual suggests possible roles of key players and identifies the training they need to deal with mold issues. The Manual includes information on specialized topics and is directed to technical service providers and housing managers (product # 67299).



Builders and Renovators' Manual
This final manual of the series includes information on technical and specialized topics and is directed to housing managers, builders, contractors, renovators, technical service providers and mold remediation specialists (product # 67301).

If you have any questions or comments about this document or other CMHC publications, please call 1-800-668-2642.

WHAT IS MOLD AND WHY IS IT A PROBLEM?

- Mold can be harmful or helpful depending on where it grows.
- Moisture makes mold grow.
- Mold does not grow on dry materials.
- Mold growing inside your house can affect you and your family.
- You can learn to recognize mold.
- Mold in houses is not the only cause of health problems.

WHAT IS MOLD?

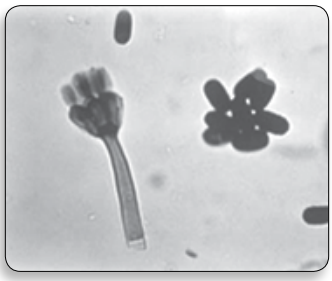
You encounter mold every day. Food can spoil because of mold. Leaves rot because of mold. Pieces of wood lying on the ground rot because of mold. Mushrooms are the same family as mold. That fuzzy black growth on wet window sills is mold. Paper or fabrics stored in a damp place get a musty smell because of mold.

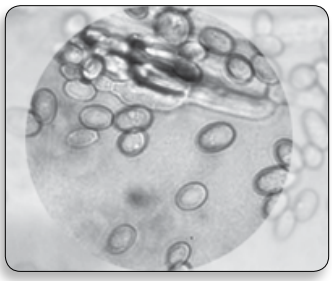
Mold is not always bad. Mold stops waste materials from piling up. For example, mold turns a heap of compost into a small pile of black earth. Mold is nature's way of recycling materials back to the earth.

Mold can be useful to people. Penicillin is obtained from one type of mold. Some food and drinks are made by the actions of mold. The good kinds of mold are grown in controlled ways.

However, mold can also be harmful when it grows where we don't want it, such as in homes.

Mold spores under the microscope





Some food would not exist without the actions of mold

What makes mold grow?

Mold will grow if we provide it with moisture and nutrients. If we keep things dry, mold does not grow.

Moisture can result from water coming in from outside or from plumbing leaks. High moisture levels can also result from people living in the house and from daily activities like bathing, washing clothes or cooking. Water enters the house when there is a crack or leak in its foundation, floor, walls or roof. Moisture can also build up inside the home when it can't be vented outside.

Plumbing leaks can lead to mold

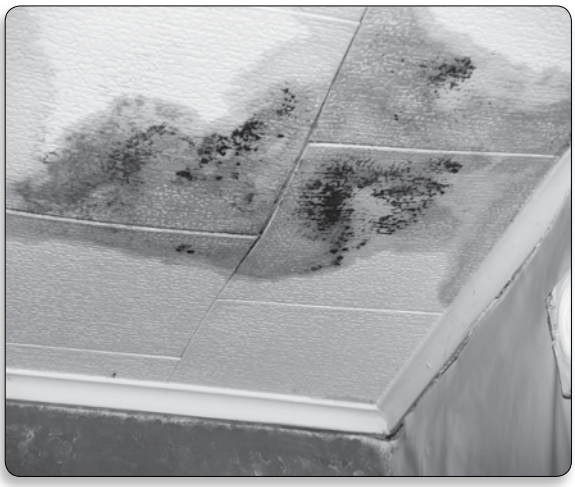
Where can mold grow?

Mold can grow on common building materials such as drywall, wood and wood products, ceiling tiles, wallpaper and carpets. Mold can also grow behind wallpaper; in areas where water may have seeped, like wall cavities, basement subfloors, crawl spaces, and so on; under wall-to-wall carpeting and in areas near to mold that has been discovered before.

Different kinds of mold grow on different materials. Some kinds of mold like it soaking wet, while others may grow even if no water can be seen. Dampness inside a material can be enough for mold to grow. Continued mold growth means that there is too much moisture in the home. In Canada, basements, crawl spaces, bathrooms and cold exterior walls are where most mold growth is found.

Mold can grow on damp drywall

Mold can grow on wet ceiling tiles



How can I tell if it is mold?

Stains/discolouration

Discolouration (when a material changes colour) can be a sign of mold. However, all discolouration is not from mold. Carpeting near baseboards, for example, can be stained by outdoor pollution entering the home. Stains or soot may also be from burning candles or cigarette smoke. When a furnace does not work properly it can also produce soot. Mold growth usually looks fuzzy or powdery and is very often light green to brown or black in colour. It can also be white, red, orange, yellow, blue or violet.

Smell/odour

Sometimes mold cannot be seen. A musty or earthy smell often means mold. But not all types of mold have a smell. Even when you don't notice a smell, wet spots, dampness or signs of a water leak mean there are moisture problems and mold may follow.

Black discolouration of carpeting near baseboards can be a sign of a mold problem

Mold can look powdery white

Smoke from candles can cause stains

Water stains on walls are evidence of a moisture problem

Why is mold a concern?

Damage to materials is one concern. Moldy materials like paper, cardboard or fabrics get stained or discoloured and, over time, they are ruined. Ongoing mold growth on wood can lead to wood rot, which can damage windows, siding, and even the structure of the house.

When mold grows inside the house, there may be a problem with indoor air quality. Mold releases chemicals and spores that can be damaging to some people. Health Canada says that mold can cause "allergic reactions such as asthma or allergic rhinitis, non-allergic reactions such as headaches, and other symptoms [including] lung and breathing infections."[1]

The level of concern depends on the amount of mold, how long it has been around and the health of the residents. Pregnant women, infants, children, the elderly and those with health problems, like a breathing difficulty (respiratory disease) or a weak immune system, are more at risk from mold. Those who already have health problems or those who spend a lot of time in the house may be affected more than others.

Health Canada considers that mold growth in residential buildings may pose a health hazard and recommends controlling dampness and cleaning up mold regardless of the type of mold.[2]

Water can lead to mold and can damage building materials

Mold growth can lead to wood rot

[1] Health Canada, *Residential Indoor Air Quality Guidelines: Moulds,* (Ottawa: Her Majesty the Queen in Right of Canada, 2007), 2 p.

[2] Federal-Provincial Committee on Environmental and Occupational Health, *Fungal Contamination in Public Buildings: A Guide to Recognition and Management,* (Ottawa: Health Canada, 1995), 76 p.

Who is at higher risk from mold?

Some individuals may be more at risk from mold exposure. Health Canada advises that the following people should not do any of the cleanup activities and should not be in or even near the work area:

- people with asthma, tuberculosis or other breathing difficulties (respiratory disease);
- people with a mold allergy or chemical sensitivities;
- people with any sort of immune suppression or immunocompromised condition (HIV, chemotherapy, transplant, taking certain medications, and so on);
- people with any virus or bacterial infection, (bronchitis, pneumonia, severe cold or flu)—they should wait until fully recovered before working in moldy areas;
- pregnant women;
- infants;
- children; and
- the elderly.

Contact your environmental health officer or your community health nurse/representative if you or a family member suffers from asthma or breathing (respiratory) problems or other health problems that get worse inside the house.

Pregnant women, infants, children and the elderly are more at risk when exposed to mold and should not be near the work area during cleanup

IS THERE A MOLD PROBLEM IN MY HOME?

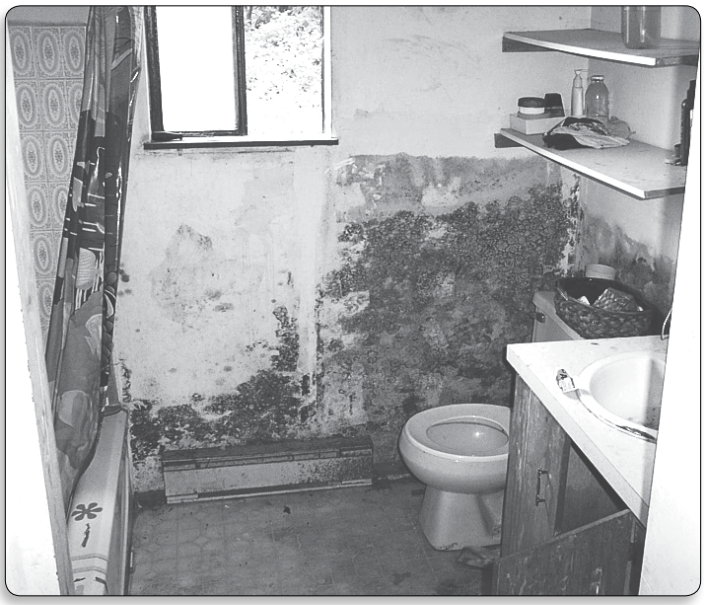
- Small amounts of mold in a house are common and are easy to take care of if you catch them early.
- Medium or large amounts of mold in a house are harder to clean up and fix.

The outside air always has some mold. Mold comes into the house through open windows or doors, on clothing or pets, or through drafts. It is normal to find some mold in indoor air. The problem starts when mold grows inside the house. The types of mold that grow indoors may be different from the ones found outdoors. A small amount of mold on the window sill, but nowhere else, is not a cause for concern but it may be a sign that there is too much moisture (dampness) in your house. It is important to find where the moisture is coming from because the situation must be fixed.

It is important to figure out how much moisture (dampness) and mold you have in your house and to have a plan to deal with any problems. For example, larger mold problems are harder to solve and you will need professional help.

You can figure out the area of the mold in your home to see if you should take care of the problem yourself or if you should get help. Use the images on page 7 to see if the area of mold in your home is ***small***, ***medium*** or ***large***.

Solving larger mold problems requires professional help



The mold area is ***small*** if there are one, two or three patches of mold and each patch is smaller than one square metre (1 m x 1 m). Mold on window sills are usually small areas.

ATTENTION

Small moldy areas in houses can become bigger if ignored, so it is important to clean up even tiny patches of mold.

Many small patches of mold in one area or throughout the house are a sign of moisture problems that need to be investigated and corrected right away. However, in most cases, small areas of mold can be cleaned up by home residents or housing maintenance staff using proper precautions. See "How do I clean up small mold problems?" on page 8.

The mold area is considered ***medium*** if there are more than three patches of mold (each smaller than one square metre) but the total mold area is less than three square metres (for example 1 m x 3 m or about the size of a 4 ft. x 8 ft. sheet of plywood). Patches close together are considered as one patch.

ATTENTION

In many cases, professional help is needed to take care of medium amounts of mold but home residents may be able to attempt the cleanup with training and proper precautions.

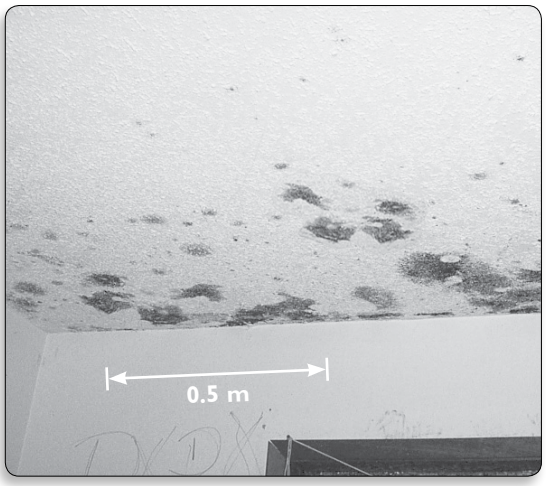
The mold area is ***large*** if a single patch of mold is larger than three square metres (for example 1 m x 3 m or a standard piece of 4 ft. x 8 ft. plywood) or if there are many medium or large patches of mold all through the house.

ATTENTION

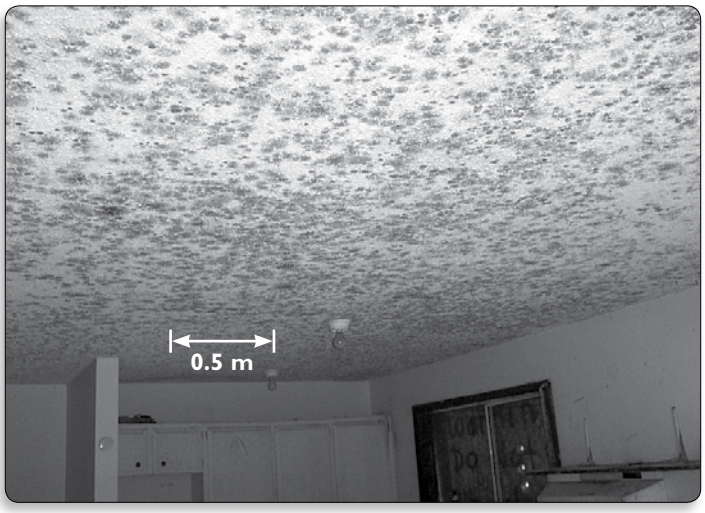
Large mold areas should be left to contractors who are trained to deal with mold cleanup.

Small mold area

Medium mold area



Large mold area



WHAT CAN I DO ABOUT MOLD IN MY HOME?

- You can clean up small areas of mold yourself by following these steps and safety precautions.
- Medium and large areas of mold should be cleaned up by people who are trained to clean up mold.
- People at risk from the effects of mold should not clean up mold and should be protected or stay away during cleanup.

HOW DO I CLEAN UP SMALL MOLD PROBLEMS?

A small mold problem has one, two or three patches of mold and each patch is smaller than one square metre (or the size of a regular black garbage bag folded in half), see page 7.

You can clean up small areas of mold yourself if you are healthy. If you are at risk from the effects of mold you should not clean up mold and you should be protected or stay away during cleanup.

ATTENTION

Mold MUST be cleaned up but cleaning alone does not stop the mold growth. Cleaning is temporary and mold will come back if you do not take care of the moisture and dampness. You can help by trying to keep your home dry.

Do not use bleach to clean mold

The best way to clean mold is to use warm water and unscented dishwashing detergent. Chemicals and disinfectants that claim to kill mold, such as bleach, can produce harmful fumes and do not prevent mold from coming back. Using too much bleach and other chemicals can be harmful to the environment.

You can clean a small mold area with a mild unscented dishwashing detergent

Required protection equipment

- safety glasses or goggles
- a mask (if possible an N95 respirator or equivalent; this type of mask traps small particles like mold better than a regular dust mask)
- household rubber gloves

Washable surfaces

Examples of washable surfaces are window sills, wood, hard surfaces and tiles.

- Scrub with unscented dishwashing detergent mixed with warm water (using unscented detergent will make it easier for you to smell any mold left after cleaning).
- Sponge with a clean, damp rag and let it dry quickly.

ATTENTION

Tips on drying surfaces quickly: make sure there is good airflow with nothing blocking it and use a fan to blow air over the surface.

Painted drywall

The paper surface of drywall grows mold when it gets wet over and over again and does not dry quickly. Cleaning with too much water adds moisture to the paper and can damage the surface.

- Clean the surface with a damp rag using baking soda or a bit of unscented dishwashing detergent mixed with warm water. Do not allow the drywall to get too wet. Wipe off the water quickly.
- If the mold is underneath the paint, the drywall will need to be removed and replaced with new drywall.

ATTENTION

Painting over a moldy surface does not take care of mold. Painting over a moldy surface only hides the problem. Paint does not kill mold and does not stop it from growing.

Concrete walls and floors

- Scrub with an unscented dishwashing detergent mixed with warm water.
- Sponge with a clean, damp rag and let it dry quickly.
- Remove any carpets or cardboard boxes that have been placed on the concrete floor as these may get damp and allow mold to grow.

It is important to wear protective equipment

HOW DO I PREPARE FOR A MEDIUM TO LARGE MOLD CLEANUP?

See page 7 for a definition and pictures of medium and large mold problems.

Take these steps to reduce your exposure to mold while you are waiting for medium to large mold cleanup activities or repairs to start in your home.

Required protection equipment

- safety glasses or goggles
- a mask (if possible an N95 respirator or equivalent; this type of mask traps small particles like mold better than a regular dust mask). If you will be working for several hours or days, you should use a half-face respirator with charcoal cartridges instead.
- household rubber gloves

Step 1: Isolate the area

In case you need to seal an area:

- Cover the moldy surfaces with plastic sheeting like a clean garbage bag and secure the edges with duct tape. Note that this is only a temporary measure to limit your exposure.
- Place a fan in a window in the room being cleaned that blows the inside air to the outside and helps to keep the mold from moving to the rest of the house. It also provides ventilation for you.

Step 2: Throw away moldy or damaged items

- Place and seal all moldy items in a plastic bag.
- Take the sealed bags outside using the closest exit.

Soft furnishings

Check non-washable furnishings on a case-by-case basis for mold. Moisture (dampness) and mold can get into soft or upholstered (cushioned) furnishings. Cleaning the surface of such items may not work.

- Furnishings that have been in very moist conditions for several weeks can become moldy. You might have to throw away carpets, sofas and cushions that got wet or have been exposed to damp conditions.
- Throw away items that you no longer need so that there is less around to absorb moisture and grow mold.
- Do not hang onto moldy items after the house is cleaned.

Minimize your exposure to mold by sealing the moldy area

Moisture and mold can get into soft or upholstered (cushioned) furnishings

Papers and clutter can absorb moisture, grow mold and reduce air circulation

Mattresses, bedding and plush toys

Because many hours are spent in bed, it is important to make sure that mattresses, pillows, blankets and stuffed toys are mold-free. Stuffed toys should be considered as bedding because they are often used as pillows or held close to children's faces. Mold can grow in mattresses and bedding that have been damp for a long period of time. It is not possible to clean a moldy mattress.

- Throw away mattresses, pillows, stuffed toys or bedding that have been stored in wet basements or crawl spaces.
- Clean mattresses in good condition with a HEPA vacuum or externally exhausted vacuum. It is helpful to place the mattress in full sunlight to dry for several hours, turning it so that both sides are dried.

Paper and cardboard

Moldy paper is one of the most difficult materials to clean. Throw away books, paper, cardboard, puzzles, and so on that are moldy, damp or have been stored in an area where mold is a problem.

- Throw away any books or other paper products that show signs of mold (black or brown fuzzy growth, greenish powdery spots or red to violet stains on some or all of the pages).

Step 3: Wash and clean

Wash clothes and fabrics like curtains that are moldy, damp or have been stored in an area where mold is a problem.

- Wash clothes and fabrics with unscented detergent and one cup of bleach. Repeat if the moldy smell remains after washing and drying.
- Dry clean non-washable clothing and fabrics.
- Store clean clothes and other items that have been washed in closed plastic bags until the mold problem is solved to keep the mold away.

Clean hard washable surfaces that are moldy, damp or have been stored in the area where mold is a problem.

- Scrub with an unscented dishwashing detergent mixed with warm water. Use unscented detergent to make it easier for you to smell any mold left after cleaning.
- Sponge with a clean, damp rag and let it dry quickly.

Mold-damaged possessions

Step 4: Vacuum

Vacuuming with the right kind of vacuum helps to take care of dust that may contain mold spores. Taking care of dust reduces your exposure to mold.

- Do not use a regular vacuum for houses with a mold problem. Instead use:
  - a vacuum cleaner with a high efficiency particulate air (HEPA) filter; or
  - a vacuum that is exhausted to the outside (central vacuum systems are often vented outside but be sure to check before using).
- Vacuum all surfaces in the house (floors, walls, ceilings, shelves) slowly and carefully.
- Vacuum all non-washable furnishings (sofas, chairs, mattresses, and so on) slowly and carefully. If the furnishings have been wet or exposed to dampness over a long period, HEPA vacuuming will probably not remove any mold growing under the surface. It is better to throw away the item.

ATTENTION

It is important to use a HEPA vacuum or externally exhausted vacuum cleaner instead of a regular vacuum cleaner.

- HEPA vacuums have special filters that can trap and collect very small particles. Mold spores are captured in the HEPA filter.
- A central vacuum that is exhausted to the outside also removes mold spores from inside the home.
- A regular vacuum cleaner should never be used for mold cleanup unless it can be exhausted outside. A regular vacuum cleaner has filters that let fine particles, like mold spores, pass through the filter and blow back into the room.
- If possible, vacuum regularly with a HEPA vacuum or externally exhausted vacuum to help prevent the buildup of dust and mold.

ATTENTION

Vacuuming with any vacuum cleaner (regular, central or HEPA) stirs up dust and mold. Wear a dust mask (N95 if possible) while vacuuming so you are not breathing in more mold.

Where do I find a HEPA vacuum cleaner?

HEPA vacuum cleaners are available at most department stores or vacuum cleaner stores. If you buy or rent a vacuum cleaner, think about getting one with a HEPA filter. A HEPA vacuum costs approximately $300 or more.

HEPA vacuum

Central vacuum

WHAT CAN I DO TO PREVENT MOLD AND MOISTURE INDOORS?

- Keep your house dry.
- Prevent and repair leaks.
- Control moisture that is produced within your house.
- Use bathroom fans.
- Use range hood fans.
- Store firewood outside.
- Regularly check your house for signs of mold.
- Act quickly to keep small problems from getting bigger.

WHAT IS RELATIVE HUMIDITY?

Humidity is the amount of water in the air. We need humidity for our comfort and health but too much humidity can lead to mold.

Humidity is measured as relative humidity. Relative humidity is the amount of moisture in the air compared to the maximum amount the air can hold at that temperature (measured as a percentage). Warm air can hold more moisture than cool air, so the relative humidity in a room changes as the temperature changes, even though the amount of moisture in that room stays the same. For example, as the temperature in a room cools, the relative humidity rises.

ATTENTION

The relative humidity inside your home should be low enough to prevent condensation ("fog") on the windows. You can use a dehumidifier to lower the relative humidity in your home.

Indoor relative humidity should be between 30 percent and 50 percent. When it is below -10 °C (14 °F) outside, the relative humidity inside should be 30 percent but it can be as low as 25 percent in extremely cold regions, to prevent condensation on cold surfaces such as windows.

Use a range hood fan to vent moisture outside

HOW DO I MEASURE RELATIVE HUMIDITY IN MY HOME?

To find out if you have too much moisture in the air indoors, you can measure the relative humidity using a hygrometer (sometimes called a humidity sensor or humidity indicator). These can be bought for $10 to $60 at a hardware store. Your housing manager may have a hygrometer that you can borrow or may be able to measure the humidity for you.

If you can't get a hygrometer, look for these signs that tell you the indoor humidity is too high:

- condensation (water) on windows;
- wet stains on walls and ceilings;
- moldy bathrooms;
- musty smells; and
- allergic reactions (such as a runny nose, itchy/watery eyes, headaches, wheezing, coughing).

WHAT SHOULD I DO IF THERE ARE SIGNS OF EXCESS MOISTURE IN MY HOME?

The following checklist can be used to help you keep mold out of your home by controlling and preventing moisture and sources of mold.

ATTENTION

A humidifier can cause excess moisture. Humidifiers can cause mold in your home if not installed, used or maintained properly. Do not use a humidifier if you notice mold or signs of dampness, such as water on your windows or wet spots in other areas. If the relative humidity in your home is very low, it is better to seal up your house by weatherstripping and caulking windows and doors. This will keep the dry, cold air from leaking in from outside. Make sure you use your ventilation system for good indoor air quality.

Relative humidity should be low enough to prevent condensation (water) on windows

Moldy bathrooms can be a sign that the indoor humidity is too high

CHECKLIST

AROUND THE HOUSE

NOTES

Leaks or floods

> You only have a short time to clean up before mold begins to grow—less than 48 hours.

- ❑ Repair leaks right away.
- ❑ In the first 48 hours, remove water-damaged items and construction materials to reduce the risk of mold exposure.
- ❑ Act right away to save items that will be ruined by mold if left longer.
- ❑ Dry wet flooring, walls, furnishings and other items.
- ❑ Throw away items that can't be dried.
- ❑ Pull carpets and furnishings away from wet walls to let air flow and help dry.
- ❑ Carpets and underpads that are moldy should be thrown away.

Musty smell

Can be a result of mold spores and dust in carpets and on floors

- ❑ Install a central vacuum vented outdoors or use a HEPA vacuum.
- ❑ Vacuum often.
- ❑ Clean hard floors with a damp mop.
- ❑ Have family and friends take off their shoes at the door before entering your house.

Potted plants

- ❑ Reduce the number of potted plants in your house.
- ❑ Cover the top of the pots with foil, hard plastic or a thick layer of pebbles to keep the moisture and mold in the soil.

Furniture

- ❑ Do not bring furniture that has been stored in a moldy place into your house.

CHECKLIST

Condensation (water) on windows

Damp wooden window frames and sills

- ❑ Lower the indoor moisture levels. Use bathroom fans and kitchen range hood.
- ❑ Keep window coverings open to move the warm air over the windows.
- ❑ Heavy curtains or blinds can trap the cold and moisture and cause condensation (water) on your windows.
- ❑ Dry your window frames and sills daily to keep water from dripping and causing mold to grow.
- ❑ Make sure furniture does not block heat from floor registers or baseboard heaters and keep it from reaching the windows.
- ❑ Check the rest of the house for moisture sources like leaks, stored firewood, and so on.
- ❑ If you have tried all of these tips to reduce moisture in your home and you still have condensation, your windows may need to be replaced.

IN THE BASEMENT

High indoor relative humidity

- ❑ Run a dehumidifier in your basement. A dehumidifier helps to reduce moisture (dampness) in the basement year round.
- ❑ Close the basement windows when the dehumidifier is running.

Sweating or condensation (moisture) on pipes

- ❑ Check pipes for sweating or condensation.
- ❑ Dry off pipes then insulate with foam-type insulation.

Musty smell

Too many stored items with no airflow

- ❑ Get rid of clutter and keep the basement tidy so air can move freely, especially near outside walls.
- ❑ Throw away items you don't need or keep them off the floor.
- ❑ Never place cardboard boxes directly on basement floor.
- ❑ Store firewood in a shed or garage, not inside the house.

NOTES

CHECKLIST

- ❑ Remove clothes, blankets, paper products and furniture from the basement. Store these items somewhere else in the house.
- ❑ If you must use the basement for storing items, use plastic bins with lids instead of cardboard.
- ❑ Remove any carpets from the basement floor.

Too many stored items (clothes, blankets, books, photographs, magazines, boxes) restrict airflow and will collect moisture and allow mold to grow.

Earth floors

- ❑ Install a moisture barrier (plastic sheeting) over the earth floor.
- ❑ Pour a concrete slab over the moisture barrier to protect it.

Floor drains

- ❑ Clean the drain in your basement floor. Pour ½ cup of baking soda and ½ cup of water into drain, then add ½ cup of vinegar. Cover the drain and let the baking soda and vinegar work for 20 minutes then run plenty of water through the drain. Do this as needed.
- ❑ Keep the drain trap filled with water.
- ❑ Pour mineral oil into the trap to prevent it from drying out.
- ❑ Replace the drain with an air-sealing type.

Open sump pits

- ❑ Avoid standing (still) water.
- ❑ Keep your sump pit covered and sealed.
- ❑ Use a tight-fitting cover (use a piece of metal or you can make a good cover by wrapping plywood with a 0.15-mm [6-mil] polyethylene plastic sheet).
- ❑ Make sure the pump is working.

Outside

- ❑ Make sure that the slope of the ground around the house drains surface water away from the house.
- ❑ Make sure that eavestroughs and downspouts are clear and drain roof water away from the house.

NOTES

CHECKLIST

BEDROOMS

High indoor relative humidity

- ❑ Keep baseboards or heating vents clear to make sure the heat flows.
- ❑ Leave doors open for good air and heat flow.
- ❑ Unplug and remove humidifiers.

Musty smell

- ❑ Keep beds, bedding and furniture away from outside walls for good airflow.
- ❑ Keep closets and storage spaces free and clear, especially if near an outside wall.
- ❑ If possible, clean carpets often and well with a HEPA vacuum.

IN THE BATHROOM

High indoor relative humidity

- ❑ Remove the moisture by using an exhaust fan when you shower.
- ❑ Keep the fan running for 30 minutes after your shower.
- ❑ Make sure the fan exhausts to the outside, not to your attic.
- ❑ Clean the fan and grille often.
- ❑ If you don't have an exhaust fan get one installed in each bathroom.
- ❑ Keep surfaces clean and dry. Squeegee and dry the walls around the bathtub and shower after showers and baths.
- ❑ Remove any mold by scrubbing with unscented detergent and water.
- ❑ Clean often to prevent mold buildup.
- ❑ Repair or replace open/cracked/damaged caulking around shower and tub.

Plumbing leaks

- ❑ If you find any leaks, have them repaired.

Musty smell

- ❑ Remove any carpeting in your bathroom.
- ❑ Use a small bath mat to prevent slipping when getting out of the shower or bath. Hang it to dry after each use.
- ❑ Remove dirt and hair in drains.

NOTES

CHECKLIST

- ❑ Clean drains often:
  - ❑ Pour a handful of baking soda into the drain. Add a cup of vinegar.
  - ❑ Put the plug in the drain.
  - ❑ Let the vinegar and baking soda work for about 20 minutes.
  - ❑ Run fresh water into the drain.
- ❑ If the drain is plugged, use a small plumbing snake to unplug it.

Condensation (water) on toilet tank or bowl (in the summer months)

- ❑ Keep the toilet wiped dry so water does not drip onto the floor.
- ❑ Check condition of flooring around toilet.
- ❑ Repair any moisture damage or damaged flooring.
- ❑ Get an insulated toilet tank.

Water seeping behind walls

Cracked or missing caulking

- ❑ Check often to make sure caulking is in good shape.
- ❑ Replace caulking when cracked or missing or notify the housing manager.

IN THE KITCHEN

High indoor relative humidity

Cooking

- ❑ If the fan over your stove exhausts outside, use it when you cook to remove the moisture from cooking.
- ❑ Find out how to clean and maintain your exhaust fan.
- ❑ If you don't have a fan, get an exhaust fan installed that vents to the outside.
- ❑ Do not boil water in uncovered pots for long.
- ❑ Cover boiling pots with a lid when possible.

Plumbing leaks

- ❑ Check under the kitchen sink to make sure there are no leaks in the pipes.
- ❑ If you find any leaks, have them repaired.
- ❑ Keep the area under your sink free and clear.

NOTES

CHECKLIST

Standing (still) water

❑ Clean the drip pan under the refrigerator. At the same time, vacuum dust from the coils at the back of the refrigerator. For fridges with coils underneath the fridge you can only vacuum from the front and back of the fridge at the base. Be careful not to damage the coils.

Unpleasant odours

Dirt in drains

❑ Clean drains often:
- ❑ Pour a handful of baking soda into the drain. Add a cup of vinegar.
- ❑ Put the plug in the drain.
- ❑ Let the vinegar and baking soda work for about 20 minutes.
- ❑ Run fresh water into the drain.

❑ If the drain is plugged, use a small plumbing snake to unplug it.

Garbage

❑ Take out the garbage daily to prevent odours and spoiling.

❑ Clean garbage containers often.

IN CLOSETS AND STORAGE

Musty smell

Too many stored items with no airflow

❑ Give away clothes or other stored items that you don't use.

❑ Keep your closets and bedrooms tidy so it is easier for air to flow—and harder for mold to grow.

❑ Limit the amount of storage in closets against outside walls.

❑ Leave closet doors open to allow air to flow.

NOTES

CHECKLIST

IN THE LAUNDRY AREA

High indoor relative humidity

Clothes dryer

- ❑ Empty the lint tray every time you use the dryer.
- ❑ Check that your clothes dryer vents to the outside. If not, connect your clothes dryer vent to the outside. Seal the joints in the dryer duct with foil tape.
- ❑ Occasionally inspect the vent and remove any built-up lint. Make sure nothing is placed in front of the vent outside and that the vent is kept clear.

Laundry tub and washing machine

- ❑ Dry your laundry tub and washing machine after you use them by wiping with a clean rag and hanging it to dry.
- ❑ Leave the washing machine door open when not in use so that any water left behind can dry. This will prevent mold and bacteria from growing inside the washing machine.
- ❑ Make sure that water from the washing machine flows directly into the laundry sink without dripping or splashing outside of the laundry sink. Use pipe extensions to reduce any splashing.
- ❑ Use cold water for laundry whenever possible since this reduces the amount of moisture created. Cold water also kills dust mites.
- ❑ Check hoses and connections for leaks.

Wet laundry

- ❑ Don't hang laundry indoors to dry.

IN COLD ROOMS AND ROOT CELLARS

Musty smell

- ❑ Stop using your cold cellar.
- ❑ Change your cold cellar to a heated area or close it off from the house and add an entrance from outside.
- ❑ Use a refrigerator for cold storage or build a "root" cellar outside.

NOTES

CHECKLIST

HEATING SYSTEM

NOTES

Cold, unheated or damp areas

- ❑ Check that heating vents serving the area are open. Ensure dampers in the floor grille and/or ducts are open.
- ❑ Ensure baseboard heaters are operating.
- ❑ Ensure thermostats are working and are set properly.
- ❑ Do not leave areas of the home unheated.
- ❑ If your windows have a condensation problem, don't turn the heat down too low at night or when you are away.
- ❑ Keep inside doors open for better airflow.
- ❑ Make sure that there is no furniture around air intake grilles and heating vents.
- ❑ Check thermostat settings.
- ❑ Have the heating system checked (serviced) annually.

Musty smell or low airflow

Filters

- ❑ Filters that are not changed or cleaned often enough can increase the amount of mold spores in the air.
- ❑ Inspect furnace filters often (replace them at least every three months). Use a pleated, one-inch filter, not a coarse filter, if possible.
- ❑ If you have a heat recovery ventilator (HRV), clean the filter inside the HRV as recommended by the manufacturer—usually the filters should be cleaned every three months and replaced as needed (for example when they stay dirty or black after cleaning).

Electric baseboards that collect dust and mold spores

- ❑ Vacuum baseboards often. Turn off units before vacuuming.
- ❑ Inspect and maintain baseboards often.

Furnace humidifiers

- ❑ Furnace-mounted humidifiers can be a source of mold.
- ❑ Clean and dry trays often.

Furnace

- ❑ Clean floor and wall grilles.
- ❑ Vacuum ducts leading to the grilles.

CHECKLIST

OUTSIDE THE HOUSE

NOTES

Leaks

- ❑ Regularly check the condition of the roof and exterior of the house for any places where water might enter.
- ❑ Have suspected leakage points inspected and repaired.

Water runoff

- ❑ Install downspout extensions to drain rainwater and melted snow away from the house.
- ❑ Make sure that eavestroughs, downspouts and downspout extensions are connected and working.
- ❑ Regularly remove any leaves from eavestroughs, downspouts and downspout extensions that block the water from flowing.
- ❑ Water overflowing from eavestroughs may indicate something blocking the flow of water to the downspout.
- ❑ Make sure soil, grass and driveway slope away from the house.
- ❑ Fix problems as quickly as possible.
- ❑ Check window wells and keep them clear of leaves or debris.

WHERE CAN I FIND MORE INFORMATION?

For more information, contact the following organizations:

Aboriginal Affairs and Northern Development Canada
Terrasses de la Chaudière
10 Wellington Street, North Tower
Gatineau, Que. K1A 0H4
Toll-free phone: 1-800-567-9604
TTY: 1-866-553-0554
E-mail: InfoPubs@aadnc-aandc.gc.ca
www.aadnc-aandc.gc.ca

Alberta Region
Aboriginal Affairs and Northern Development Canada
630 Canada Place
9700 Jasper Avenue
Edmonton, Alta. T5J 4G2
Phone: 780-495-2773
Fax: 780-495-4088

Atlantic Region
Aboriginal Affairs and Northern Development Canada
P.O. Box 160
40 Havelock Street
Amherst, N.S. B4H 3Z3
Phone: 902-661-6200
Fax: 902-661-6237

British Columbia Region
Aboriginal Affairs and Northern Development Canada
1138 Melville Street, Suite 600
Vancouver, B.C. V6E 4S3
Phone: 604-775-7114 or
604-775-5100
Fax: 604-666-2546

Manitoba Region
Aboriginal Affairs and Northern Development Canada
365 Hargrave Street, Room 200
Winnipeg, Man. R3B 3A3
Phone: 204-983-4928
Fax: 204-983-7820

Northwest Territories Region
Aboriginal Affairs and Northern Development Canada
P.O. Box 1500
Yellowknife, N.W.T. X1A 2R3
Phone: 867-669-2500
Fax: 867-669-2709

Nunavut Region
Aboriginal Affairs and Northern Development Canada
P.O. Box 2200
Iqaluit, Nun. X0A 0H0
Phone: 867-975-4500
Fax: 867-975-4560

Ontario Region
Aboriginal Affairs and Northern Development Canada
25 St. Clair Avenue East, 8th Floor
Toronto, Ont. M4T 1M2
Phone: 416-973-6234
Fax: 416-954-6329

Quebec Region
Aboriginal Affairs and Northern Development Canada
Jacques-Cartier Complex
320 St. Joseph Street East, Suite 400
Québec, Que. G1K 9J2
Toll-free phone: 1-800-263-5592
Phone: 418-648-7551
Fax: 418-648-2266

Saskatchewan Region
Aboriginal Affairs and Northern Development Canada
1 First Nation Way, Room 200
Regina, Sask. S4S 7K5
Phone: 306-780-5945
Fax: 306-780-5733

Yukon Region
Aboriginal Affairs and Northern Development Canada
122-300 Main Street
Whitehorse, Y.T. Y1A 2B5
Phone: 867-667-3888
Fax: 867-667-3108

Assembly of First Nations
55 Metcalfe Street, Suite 1600
Ottawa, Ont. K1P 6L5
Toll-free phone: 1-866-869-6789
Phone: 613-241-6789
Fax: 613-241-5808
www.afn.ca

Canada Mortgage and Housing Corporation—National Office
700 Montreal Road, Suite 100
Ottawa, Ont. K1A 0P7
Toll-free phone: 1-800-668-2642
Toll-free fax: 1-800-245-9274
TTY: 613-748-2447
www.cmhc.ca/firstnations

Canadian Home Builders' Association
150 Laurier Avenue West, Suite 500
Ottawa, Ont. K1P 5J4
Phone: 613-230-3060
Fax: 613-232-8214
E-mail: chba@chba.ca
www.chba.ca

Canadian Oil Heat Association
115 Apple Creek Blvd., Suite 202
Markham, Ont. L3R 6C9
Phone: 905-946-0264
Fax: 905-946-0316
www.coha.ca

First Nations Health Managers Association
www.fnhma.ca

First Nations National Building Officers Association
c/o Southern First Nations Secretariat
22361 Austin Line
Bothwell, Ont. N0P 1C0
Phone: 519-692-5868
E-mail: info@fnnboa.ca
www.fnnboa.ca

Heating, Refrigerating and Air Conditioning Institute of Canada
2800 Skymark Avenue,
Building 1, Suite 201
Mississauga, Ont. L4W 5A6
Toll-free phone: 1-800-267-2231
Phone: 905-602-4700
Fax: 905-602-1197
E-mail: hraimail@hrai.ca
www.hrai.ca

Mohawks of the Bay of Quinte
Administration Office
13 Old York Road
Tyendinaga Mohawk Territory,
Ont. K0K 1X0
Phone: 613-396-3424
E-mail: reception@mbq.tyendinaga.net
www.mbq-tmt.org

Natural Resources Canada
Toll-free publications line:
1-800-387-2000
General enquiries: 613-995-0947
Online directory: www2.nrcan.gc.ca/dpspub/index.cfm
www.nrcan-rncan.gc.ca

Office of Energy Efficiency
www.oee.nrcan.gc.ca

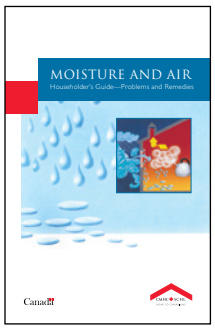
R-2000 Program
Housing, Buildings and Regulation Division
Office of the Energy Efficiency
Toll-free phone: 1-800-387-2000
Fax: 613-996-3674
E-mail: r.2000@nrcan.gc.ca
www.oee.nrcan.gc.ca

Service Canada
Canada Enquiry Centre
Ottawa, Ont. K1A 0J9
Toll-free information line:
1-800-O-Canada (1-800-622-6232)
TTY\TDD: 1-800-926-9105

Wood Energy Technology Transfer Inc. (WETT)
189 Queen Street East, Suite 1
Toronto, Ont. M5A 1S2
Toll-free phone: 1-888-358-9388
Phone: 416-968-7718
Fax: 416-968-6818
E-mail: info@wettinc.ca
www.wettinc.ca

Mold in Housing

Information For First Nation Residents



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